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Matter [2nd grade]

Trinity University

Canyon Ridge Elementary School (San Antonio, Tex.)

Unit: Matter
Grade: 2

Stage 1: Desired Results

Understandings

Students will understand that…

- Everything is made of matter, and all matter occupies space.
- Matter is neither created nor destroyed but can change state.
- Each type of matter has it's own specific physical properties.

Essential Questions

1) How are all 3 states of matter alike and different?

2) How does matter occupy space?

3) How can matter undergo change?

4) How can we use our 5 senses to identify the physical properties of matter (color, size, shape, weight, texture)?

5) Can matter ever be lost?

Vocabulary

evaporate
gases
melts
liquid
water vapor
matter
thermometer
solids
contract
expand
condensation
temperature

Knowledge & Skill

(NEISD scope & sequence; TEKS; Core; etc.)

TEKS:

2.1 Scientific Processes. The student conducts classroom and field investigations following home and school safety procedures.

2.2 Scientific Processes. The student develops abilities necessary to do scientific inquiry in the field and the classroom.

2.2B Plan and conduct simple descriptive investigations.

2.2C Compare results of investigations with what students and scientists know about the world.

2.3 Scientific Processes. The student knows that information and critical thinking are used in making decisions.

2.5 Science Concepts. The student knows that organisms, objects, and events have properties and patterns.

2.5A Classify and sequence organisms, objects, and events based on properties and patterns.

2.7 Science Concepts. The student knows that many types of change occur.

2.7A Observe, measure, record, analyze, predict, and illustrate changes in size, mass, temperature, color, position, quantity, sound, and movement.

2.7B Identify, predict, and test uses of heat to cause change such as melting and evaporation.

Stage 2: Assessment Evidence

Performance Task:

- Classify magazine pictures according to their states of matter
- Test on facts about Matter
- Computer activity using Kidspiration
- Written response to the experiment demonstrating a solid changing into a liquid
- After classifying magazine pictures according to their states of matter, have students choose one type of matter and describe how it affects us in a specific environment

Other evidence:
(quizzes, tests, academic prompts, etc.
note – these are usually included where appropriate in Stage 3 as well)

- States of Matter Reading Comprehension

Stage 3: Learning Activities

(Steps taken to get students to answer Stage 1 questions and complete performance task)

- Read and Discuss the Poem "What's the Matter?"
- Students will work in small groups to classify objects according to their state.
- Follow the Scientific Method to identify and observe the 3 States of Matter.
- What's the Matter? Scientific Terms.
- Use common objects in the classroom to demonstrate how each state of matter occupies space.
- Observe and feel a solid changing into a liquid.
- Observe dry ice and describe its properties (color, size, shape, weight, texture).
- Using the 5 senses, explore and describe the properties of edible matter.

Self-Assessments:
Related Literature:

Matter by Christine Webster
Solids, Liquids, and Gases by Ginger Garrett
What is Matter? By Don L. Curry
Everything is Matter by David Bauer

Other Evidence, Summarized
Related Media:

"Phases of Matter" by Bill Nye
"Miracle Worker" – Helen Keller